

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:) Confirmation No. 6363
Jun KOYAMA et al.)
Application No. 10/623,857) Examiner: Leonid Shapiro
Filed: July 22, 2003) Group Art Unit: 2629
For: DISPLAY DEVICE AND DRIVE)
METHOD THEREOF INCLUDING) Date: June 15, 2007
COMPENSATION FUNCTION)

REQUEST FOR RECONSIDERATION

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the March 15, 2007, Office Action, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims. Claims 1-3, 7-9, 13, 14, 17 and 18 currently are pending.

In the most recent Office Action, claims 1-3, 7-9, 13-14 and 17-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sundahl et al. (U.S. Pat. Pub. 2004/0212573 – hereafter Sundahl) in view of Ishizuka (U.S. Patent No. 6,479,940 – hereafter Ishizuka). Further, claims 3, 9, 14 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sundahl in view of Ishizuka as applied to claims 1, 7, 13 and 17 above, and further in view of Miyashita et al. (JP-361261921A – hereafter Miyashita). These rejections are respectfully traversed at least for the reasons provided below.

As set forth in MPEP §2142, the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art must teach all of the claim limitations.

Applicants respectfully point to the final prong of the test, which states the prior art must teach all of the claim limitations. At the very least, the combination of cited references do not teach all of the claim limitations of independent claims 1, 7, 13 and 17 for the reasons set forth below.

Independent claim 1 recites, among other things, the features of “an arithmetic operation unit which calculates a lighting period of each pixel corresponding to an environmental temperature using an output of the temperature detection unit, the temperature characteristic, and a video signal; a count unit which counts a cumulated lighting period of each pixel using an output of the arithmetic operation unit; and a correction unit which corrects the video signal to be inputted to each pixel using the aging characteristic and the cumulated lighting period and supplies the corrected video signal to the display panel.”

With respect to independent claim 1, the Examiner asserts that Sundahl teaches a display device comprising a display panel which is equipped with pixels including, a light-emitting element, an aging characteristic of the light-emitting element are stored, an arithmetic operation unit which calculates a lighting period of each pixel using an output of the arithmetic operation unit and a correction unit which corrects the video signal to be inputted to each pixel using the aging characteristic and the cumulated lighting period and supplies the corrected video signal to the display panel. However, Applicants contend that Sundahl fails to disclose, teach or suggest the arithmetic operation unit and the count unit, as claimed. Although Sundahl discloses a circuit (FIG. 4), Sundahl's circuit merely is used to estimate current or voltage via a measure characteristic, such as reverse bias resistance (paragraph [0022] of Sundahl). It appears that the Examiner merely states, without clear support, that the circuit of Sundahl is equivalent to the presently claimed features of an arithmetic operation unit and a count unit. Thus, Applicants contend that Sundahl fails to disclose the features of an arithmetic operation unit which calculates a lighting period of each pixel corresponding to an environmental temperature using an output of the temperature detection unit, the temperature characteristic, and a video signal; a count unit which counts a cumulated lighting period of each pixel using an output of the arithmetic operation unit; and a correction unit which corrects the video signal to be inputted to each pixel using the aging characteristic and the cumulated lighting period and supplies the corrected video signal to the display panel, as presently claimed. Similar arguments can be made with regard to

independent claims, 7, 13 and 17 as well. Thus, it cannot be said that Sundahl, taken alone or in combination with the cited secondary references, makes obvious the present invention, as claimed.

The Examiner further asserts that Sundahl discloses that temperature also affects the degradation of luminance of the device and multiple characteristics may be measured and/or combined to provide a more definitive indication of degradation and required correction than available from a single set of measurements, which clearly suggest that temperature compensation can be used to overcome degradation. In addition, the Examiner asserts that Ishizuka discloses temperature compensation by having a temperature detection unit, a storage unit, an arithmetic operation unit, and that it would have been obvious to use the feature of temperature compensation, where the measured temperature signal of Ishizuka is added to the display device of Sundahl, so as to produce a device that is able to compensate for both aging and temperature degradation and to provide a display apparatus even in the case of changing display luminance of a light-emitting panel. However, the arithmetic operation unit (33B of Ishizuka) merely adjusts the light adjustment signal for compensating temperature dependency of the light emission characteristics but does not compensate for deterioration caused by temperature change. Thus, the arithmetic operation unit (33B) of Ishizuka fails to cure the noted deficiencies in Sundahl and fails to teach or suggest an arithmetic operation unit, as presently claimed.

Similarly, Miyashita fails to cure the deficiencies in Sundahl and Ishizuka, as discussed above. Accordingly, independent claims 1, 7, 13 and 17 are allowable over the applied references, taken alone or in combination. The dependent claims are allowable over the applied references, taken alone or in combination, on their on merits and for at least the reasons as argued above with respect to their independent claims 1, 7, 13 and 17.

Therefore, in view of the foregoing it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-3, 7-9, 13, 14, 17 and 18 be allowed and that the application be passed to issue.

Based on the foregoing, Applicants respectfully submit the Section 103 rejections fail to establish a *prima facie* case of obviousness with respect to all pending claims 1-3, 7-9, 13, 14, 17 and 18. As such, the rejection should be withdrawn and the application allowed without further delay.

Respectfully submitted,

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